

STATIONARY SOURCE PERMIT TO OPERATE

**This permit includes designated equipment subject to
New Source Performance Standards (NSPS).**

This permit supercedes your permit dated February 24, 2006.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia
Regulations for the Control and Abatement of Air Pollution,

Kinder Morgan Southeast Terminals LLC
1100 Alderman Drive, Suite 200
Alpharetta, GA 30005
Registration No.: 50258

is authorized to operate

a bulk petroleum terminal

located at

2000 Trenton Avenue
Richmond, Virginia

in accordance with the conditions of this permit.

DRAFTED on August 1, 2006.

Director, Department of Environmental Quality

Permit consists of 10 pages.
Permit Conditions 1 to 33.

INTRODUCTION

This permit approval is based on the permit application dated June 30, 2006 including amendment and supplemental information dated June 8, 1995, July 18, 1995; July 25, 1995; July 26, 1995; May 2, 1996; October 23, 1997; May 19, 1999; March 14, 2001; June 5, 2001; July 5, 2001; July 27, 2001; August 14, 2001; August 20, 2001; September 25, 2001; July 29, 2002; February 13, 2003; February 24, 2003; February 23, 2004; July 12, 2004; and November 23, 2005. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. Equipment List - Equipment to be operated at this facility consists of:

Ref. #	Description	Manufacture or construction date
T-01	791,000 gallon capacity internal floating roof storage tank with welded deck construction, a primary seal and a rim mounted secondary seal	1953
T-02	590,000 gallon capacity internal floating roof storage tank with bolted deck construction, a mechanical shoe primary seal, and a rim mounted secondary seal	1953
T-03	289,000 gallon capacity internal floating roof storage tank with bolted deck construction, a vapor mounted primary seal, and a rim mounted secondary seal	1953
T-04	800,000 gallon capacity internal floating roof storage tank with welded deck construction, a primary seal and a rim mounted secondary seal	1953
T-05	823,000 gallon capacity vertical fixed roof storage tank	1953
T-06	2,548,000 gallon capacity vertical fixed roof storage tank	1953
T-07	2,311,000 gallon capacity internal floating roof storage tank with bolted deck construction, a mechanical shoe primary seal, and a rim mounted secondary seal	1953
T-08	2,548,000 gallon capacity domed external floating roof tank with welded deck construction, a mechanical shoe primary seal, and a rim mounted secondary seal	1953
T-09	2,073,000 gallon capacity domed external floating roof tank with welded deck construction, a mechanical shoe primary seal, and a rim mounted	1953

Ref. #	Description	Manufacture or construction date
	secondary seal	
T-10	3,822,000 gallon capacity internal floating roof tank with bolted deck construction, a mechanical shoe primary seal, and a rim mounted secondary seal	1953
T-11	4,100,000 gallon capacity vertical fixed roof tank	1953
T-12	3,815,000 gallon capacity internal floating roof tank with bolted deck construction, a vapor mounted primary seal, and a rim mounted secondary seal	1953
T-13	779,000 gallon capacity internal floating roof tank with bolted deck construction, a mechanical shoe primary seal, and a rim-mounted secondary seal.	1953
T-14	212,000 gallon capacity vertical fixed roof tank	1953
T-15	212,000 gallon capacity vertical fixed roof tank	1953
T-16	3,781,000 gallon capacity internal floating roof tank with bolted deck construction, a mechanical shoe primary seal, and a shoe mounted secondary seal	1957
T-17	4,173,000 gallon capacity (not in use)	
T-18	634,000 gallon capacity vertical fixed roof tank	1966
T-19	10,500 gallon capacity vertical fixed roof tank	1990
T-20	10,000 gallon capacity vertical fixed roof tank	1994
T-21	10,500 gallon capacity vertical fixed roof tank	1990
T-22	10,700 gallon capacity vertical fixed roof tank (OWS waste oil)	1987
T-24	4,000 gallon capacity horizontal lubricity additive tank	2005
OWS	One oil/water separator rated at 20,000 gallons/yr capacity	
LRT	One 7 lane truck loading rack with a maximum loading capacity of 252,000 gallons per hour (NSPS XX)	1990
LRB	One barge loading rack with a maximum hourly capacity of 1,000,000 gallons per hour (not in use)	
B1	One oil-fired boiler rated at 2 million btu/hr heat input (not in use)	

(9 VAC 5-80-850)

2. **Emission Controls** – When storing a product with a vapor pressure of 1.5 psia or higher, Tanks T-01, T-02, T-03, T-04, T-07, T-08, T-09, T-10, T-12, T-13, and T-16 shall comply with all applicable requirements of 9 VAC 5-40-5200 et. seq. (Rule 4-37). The tanks shall be provided with adequate access for inspection.
(9 VAC 5-40-10 and 9 VAC 5-80-850)

3. **Emission Controls** – Volatile organic compound (VOC) emissions from loading products with a vapor pressure of 1.5 psia or higher at the truck loading rack (LRT) shall be controlled by a vapor recovery system utilizing a vapor absorption recovery unit (VRU) AND/OR a vapor control unit (VCU) (thermal oxidizer type). (Collectively the Vapor Recovery System) The emissions to the atmosphere from the either the VCU or VRU stacks due to loading shall not exceed 0.0837 lbs/1000 gallons loaded (10 mg/liter loaded). In the event of failure of the permanent vapor recovery system, a mobile combustor may be used as specified in the permit application. The permittee shall notify the Director, Piedmont Regional Office within 4 hours of any malfunction of control equipment as specified elsewhere in this permit.
(9 VAC 5-50-410, 9 VAC 5-80-850, 9 VAC 5-50-260, 9 VAC 5-20-180)

4. **Monitoring** – Each calendar month, the permittee shall perform an inspection of the vapor collection system, the vapor processing system and each loading rack handling gasoline during the loading of gasoline tank trucks for total organic compounds liquids or vapor leaks as per 40 CFR 60.502(j).
(9 VAC 5-80-850, 9 VAC 5-50-410)

OPERATING/EMISSION LIMITATIONS

5. **Operational Limitation** – The permittee shall store only the following specifically permitted products or products with lower hourly emissions for all regulated air pollutants under identical storage conditions in each storage tank:

<u>Tank Number</u>	<u>Allowed Product</u>
1, 2, 3, 4, 7, 8, 9, 10, 12, 13	Gasoline (including interface, Non-HAP VOCs and denatured ethanol)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18	Petroleum Distillates
16	Interface
19, 20, 21	Gasoline Additives, as described in Condition 8.

(9 VAC 5-80-850)

6. **Operational Limitation** – Tank T-17 shall remain out of service. Use of this tank shall require a permit amendment.
(9 VAC 5-80-850)
7. **Operational Limitation** – The barge loading rack (LRB) shall remain out of service. Use of this equipment shall require a permit amendment.
(9 VAC 5-80-850)
8. **Operational Limitation** – The gasoline additives stored in Tanks T-19, T-20, and T-21 shall have a vapor pressure of not more than 1.0 psi at actual storage conditions. Storage of an additive with a higher vapor pressure may require a permit amendment.
(9 VAC 5-80-850)
9. **Operational Limitation** – The permittee is authorized to transfer gasoline (including interface, Non-HAP VOCs and denatured ethanol), petroleum distillates, and additive at the loading rack. A change in the products loaded may require a permit to modify and operate.
(9 VAC 5-80-850)
10. **Operational Limitation** – The permittee is authorized to transfer gasoline at the loading rack only into vapor-tight gasoline tank trucks, as defined by 40 CFR 60.501.
(9 VAC 5-80-850, 9 VAC 5-50-410)
11. **Throughput Limitations** – The annual throughput of petroleum products through the truck loading rack (LRT) at the terminal shall not exceed the limitations specified below, calculated as the sum of each consecutive 12 month period:

<u>Product</u>	<u>Annual Limitation</u>
Gasoline (including interface, Non-HAP VOCs and denatured ethanol)	590,000,000 gallons/year
Petroleum Distillates	120,000,000 gallons/year
Additive	1,000,000 gallons/year

(9 VAC 5-80-850)

12. **Throughput Limitations** – The annual throughput of petroleum products stored in the tanks at the terminal shall not exceed the limitations specified below, calculated as the sum of each consecutive 12 month period:

Product	Annual Limitation
Gasoline (including interface)	640,000,000 gallons/year
Ethanol	90,000,000 gallons/year
Interface	140,000,000 gallons/year
Petroleum Distillates	120,000,000 gallons/year
Additive	1,000,000 gallons/year

(9 VAC 5-80-850)

13. **Throughput Limitations** – The annual throughput of interface shipped via pipeline shall not exceed 140,000,000 gallons, calculated as the sum of each consecutive 12 month period.
(9 VAC 5-80-850)

14. **Estimated Emission Limits** - Emissions from the operation of each storage tank shall not exceed the limits specified below. These limitations are included for emissions inventory purposes only. Compliance shall be determined by limitations listed in Conditions 1, 2, 5, 8, 12, 13 and 23.

Volatile Organic Compound Emissions		
Tank No.	lbs/hr	tons/yr
1	3.4	1.7
2	2.9	2.3
3	1.9	1.6
4	3.2	1.7
5	25.2	0.3
6	67.0	0.8
7	6.2	4.9
8	5.0	0.8
9	4.5	0.8
10	8.1	7.7
11	122.9	1.4
12	8.2	7.7
13	3.3	2.2
14	5.3	0.1
15	5.3	0.1
16	8.1	5.2
18	21.0	0.3
19	2.5	0.1
20	2.3	0.1
21	2.5	0.1
22	0.3	0.1

(9 VAC 5-80-850)

15. **Emission Limits** – Stack emissions from the operation of the truck loading operation (LRT) when loading products with a vapor pressure of 1.5 psia or higher shall not exceed the limits specified below.

Volatile Organic Compounds	30.1lbs/hr	24.7 tpy
	0.0837 lbs/1000 gallon (10 mg/liter)	

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits shall be determined as stated in condition numbers 1, 3, 9, 10, 11, 23, and 24.

(9 VAC 5-50-260, 9 VAC 5-80-Article 6, 9 VAC 5-80-850)

16. **Emission Limits** – Stack emissions from the operation of the truck loading operation (LRT) when performing submerged loading of petroleum distillates shall not exceed the limits specified below.

Volatile Organic Compounds	4.11 lbs/hr	0.8 tpy
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits shall be determined as stated in condition numbers 1, 3, 9, 10, 11, and 23.

(9 VAC 5-50-260, 9 VAC 5-80-Article 6, 9 VAC 5-80-850)

17. **Emission Limits** – Fugitive emissions from the operation of the truck loading operation (LRT) shall not exceed the limits specified below. These limitations are included for emissions inventory purposes. Compliance shall be determined by limitations listed in Conditions 9, 10, 11, and 23.

Volatile Organic Compounds	39.17 lbs/hr	32.0 tpy
	0.109 lbs/1000 gallon (13 mg/liter)	

(9 VAC 5-80-850)

18. **Plantwide Emission Limits** - Total emissions from the bulk petroleum terminal shall not exceed the limits specified below:

Volatile Organic Compounds	383.77 lbs/hr	97.7 tpy
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits shall be determined as stated in condition numbers 1 through 17.

(9 VAC 5-80-850)

19. **Plantwide Emission Limits** - Hazardous air pollutant (HAP) emissions, as defined by §112(b) of the Clean Air Act, from the entire facility shall be less than 10.0 tons per year of any individual HAP and less than 25.0 tons per year of any combination, calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-850)

20. **Visible Emission Limit** - Visible emissions from the vapor collection system shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-850 and 9 VAC 5-170-160)
21. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Condition 1 shall be operated in compliance with the requirements of 40 CFR 60, Subpart XX.
(9 VAC 5-50-400 and 9 VAC 5-50-410)
22. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 F)

RECORDS

23. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:
- a. The yearly throughput of gasoline (to include interface, ethanol and non-HAP VOCs), additive, and petroleum distillates loaded at the truck loading rack, calculated monthly as the sum of each consecutive 12 month period, expressed in units to determine compliance.
 - b. The yearly throughput of interface via pipeline, calculated monthly as the sum of each consecutive 12 month period, expressed in units to determine compliance.
 - c. Records of the annual certification testing as required by 40 CFR 60.505 for each gasoline cargo tank loaded at the facility, including, but not limited to, the date of the most recent annual certification test and the test results. These records may be kept at an alternate location so long as they can be supplied upon request to the Director, Piedmont Region within 10 business days.
 - d. Records of the type of volatile organic liquids stored in each tank, the period of storage, and the average vapor pressure of the liquid for the time period. Available data on Reid vapor pressure for each volatile organic liquid and calendar-month average temperature from the National Weather service may be used as sources of information.
 - e. Records of the HAP content of the volatile organic liquids stored at the facility.
 - f. Performance test records and results.
 - g. Records demonstrating compliance with 9 VAC 5-40-5200 et. seq. (Rule 4-37), including:
 - i. Listing of each exempt tank and reason for exemption.
 - ii. VOC standard to which each applicable tank is subject.

- iii. Method under 9 VAC 5-40-5230 which is used to meet the applicable VOC standard or alternative control demonstration.
- h. Tank inspection reports pursuant to 9 VAC 5-40-5200 et. seq. (Rule 4-37).
- i. Monthly inspection records pursuant to 40 CFR 60.502(j) in Condition 4.
- j. Maintenance records for all permitted equipment, as listed in Condition 1, and for the vapor recovery system.
- k. Process and instrumentation drawing for the vapor recovery system for the latest performance test and a current process and instrumentation drawing.
- l. Scheduled and unscheduled maintenance, and operator training for the vapor recovery unit.

These records shall be available for inspection by the DEQ and shall be retained for the most recent five years.

(9 VAC 5-80-900, 9 VAC 5-40-5200, 9 VAC 5-50-410)

INITIAL COMPLIANCE DETERMINATION

24. **Stack Test** – An initial performance test shall be conducted for Volatile Organic Compounds (VOC) from the vapor control unit (VCU) stack to determine compliance with the emission limits contained in Condition 24 (40 CFR 60.503). The tests shall be performed, and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-50-30, 9 VAC 5-80-1200, 9 VAC 5-50-410 and 9 VAC 5-80-850)

CONTINUING COMPLIANCE DETERMINATION

25. **Stack Tests** – Within 60 months of the initial issuance date of this permit (January 14, 2002), and once every 60 months thereafter, the permittee shall conduct performance tests for volatile organic compounds from the vapor recovery unit stack while loading gasoline to determine compliance with the emission limits contained in Condition 15. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing to the Director, Piedmont Region. One copy of the test results shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-50-30, 9 VAC 5-80-1200, 9 VAC 5-50-410, 9 VAC 5-80-850)

NOTIFICATIONS

26. **Initial Notifications** - The permittee shall furnish written notification to the Piedmont Regional Office of:
- a. The actual date on which construction of the Loading Rack Lane 6's 4 bottom-loading arms commenced within 30 days after such date.
 - b. The actual start-up date of the Loading Rack Lane 6's 4 bottom-loading arms within 15 days after such date.
- (9 VAC 5-50-50 and 9 VAC 5-80-1180)

GENERAL CONDITIONS

27. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
 - c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
 - d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-170-130 and 9 VAC 5-80-850)

28. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Piedmont Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Piedmont Regional Office in writing.
- (9 VAC 5-20-180 C and 9 VAC 5-80-850)
29. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
- (9 VAC 5-20-180 I and 9 VAC 5-80-850)

30. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
(9 VAC 5-50-20 E and 9 VAC 5-80-850)

31. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to a permitted emissions unit;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted;
- f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.

(9 VAC 5-80-1010)

32. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Piedmont Regional Office of the change of ownership within 30 days of the transfer. (9 VAC 5-80-940)

33. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)